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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,405	12/11/2003	Sung-lk Park	51876P439	1181

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EXAMINER

TAYONG, HELENE E

ART UNIT	PAPER NUMBER
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2611

MAIL DATE	DELIVERY MODE
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09/04/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No.	Applicant(s)	
	10/734,405	PARK ET AL.	
	Examiner	Art Unit	
	Helene Tayong	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 11 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 December 2003 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/2/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Weiss (US 20020140867 see IDS).

(1) with regards to claims 1 and 6;

Weiss in fig. 1 and 5 discloses a terrestrial digital broadcasting system (pg.1, [0001], lines 2-5), comprising:

a broadcasting station for multiplexing video, voice and additional signals (11) into transport stream (TS) (12) and transmitting the TS (12) to the transmitting stations (20) (pg. 5, [0076]); and

a transmitting stations (17) for receiving the TS (12) and broadcasting the TS (12) to receiving stations (21) through a single frequency network (20) (pg. 5, [0076]), wherein the broadcasting station (10) includes:

a transmission synchronization means for inserting a field synchronization header to the TS in a predetermined data field period N, and wherein the transmitting stations include (fig. 5, 16 and pg.4, [0075], lines 3-6 , pg. 9, [0106], lines 7-14):

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a transmission synchronization detecting means (fig. 6, 51) for synchronizing the TS transmitted from the broadcasting station based on the field synchronization header (pg.5, [0077]);

and a trellis encoding means (fig. 6, 36) for generating initialization symbols of a predetermined length in a predetermined data field period M and synchronizing the TS outputted to the receiving stations (pg.5, [0078]).

(2) with regards to claims 2 and 7;

wherein the trellis encoding means includes:

a first switching unit for initializing output values of a trellis coded modulation (TCM) encoder and the memory by performing switching to input values stored in the memory of the TCM encoder instead of input signals of the TCM encoder every M period (fig.6, 36,65 and pg.6, [0087]); and

a second switching unit for initializing output values of a precoder and the memory by performing switching to input values stored in the memory of the precoder instead of input signals of the precoder every M period (fig. 6, 36, 66 and pg. 6, [0087]).

(3) with regards to claims 3 and 8;

wherein the field synchronization header is acquired by reversing a first segment header of data fields of an N period on a bit basis (pg. 5, [0077], lines 18-22] and pg.6, [0086], lines16-21).

(4) with regards to claims 4 and 9;

wherein the transmission synchronization detecting means recognizes that valid TS is being received, if a field synchronization header of a $B8_{16}$ value is detected in the

first segment header and the value of 47_{16} is detected in the segment headers of the other data fields (fig. 11,84,pg. 10, [0112], lines 1-18 and pg. 11, [0116], lines 12-16).

(5) with regards to claims 5 and 10;

wherein the N value is adjusted based on the communication channel environment between the broadcasting station and the transmitting stations, and the M value is adjusted based on the communication channel environment between the broadcasting station and the transmitting stations (pg.1, [0003] - [0004] and pg.2, [0012]).

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Jenkins et al (US 20020028680 A1) discloses a communication system, method and computer program product, including transmitting in a terrestrial analog broadcast channel digital information common to users within a broadcast coverage area..

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helene Tayong whose telephone number is 571-270-1675. The examiner can normally be reached on Monday-Friday 8:00 am to 5:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Liu Shuwang can be reached on 571-272-3036. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Helene Tayong

8/29/07



SHUWANG LIU
SUPERVISORY PATENT EXAMINER